Whitewater, the Legacy
A year later look at Packsaddle Canyon

A year has passed, since the Whitewater-Baldy Complex Fire burned almost 300,000 acres of the Gila National Forest and Gila Wilderness. Now, I would like to revisit portions of my first article. The longterm ramifications of the Whitewater-Baldy Complex Fire, it's legacy, has already drastically altered the soil, rivers, ecology and perhaps even the weather on the Mogollon Mountains.

Recently, I took an abbreviated trip from the Gila Cliff Dwellings National Monument through the Miller Fire burn and then into the Whitewater-Baldy Complex Fire burn near Mogollon Baldy. It wasn't an easy trip, because logs crisscrossed the trails, and some hillsides showed heavy soil erosion. The resulting floods damaged and hid long stretches of trail and clogged streams in the most recently burned areas.

The purpose of the trip was to get a better idea of the lasting effects of the most recent burns, and compare them to previous burns in the same areas. I have included several photos of the inter-mingling of previous fires where they were again burned by the Whitewater-Baldy Complex Fire. They tell a very interesting story about what the future holds, and how each successive fire cleans up or further degrades the original ecosystem.

All the following photos were taken on May 20, 2013 except #6 which is copied from a slide taken in June, 1974. All the photos were taken within about a two square mile area around the upper portion of Packsaddle Canyon, in the Gila Wilderness.

The location of the photos on the Burn Severity Map (BARC 06/05 Derived) are shown on page 7.

I made no effort to photograph the enormous sweeps of destroyed forests because we have all seen these stark vistas of burned trees. There is no "redo" here, but rather the questions:

How does the Forest Service mitigate the damage, or what policies need be changed to insure that these destroyed resources heal into productive ecosystems?

What is the desired ecosystems? Forest? Grasslands?

Ignore it, nature will repair the scars with something in the distant future.

These are big questions, too big to be left up to Forest Service policy or regulation changes. These changes need the force of Congressional legislation in order to effect changes with enough durability to do some lasting good. The nuts and bolts of this legislation must be worked out between Congress, professional foresters and fire ecologists within the National Forest system. My only suggestion is:

"Tell the self-serving environmentalists to put a sock in it!"

Photo 1, White Creek Canyon (Gila Wilderness) Mogollon Baldy is in the background, and part of Cub Creek is in the far right. Halfmoon Park is just right of center in the canyon bottom. Within this view there are 4 burns. This photo was taken looking West, at about 8,500 elevation. It was mixed conifer with spruce/fir at the higher elevations.

1. Cub Creek Fire, prior to 1950. Far, top right. This was a well developed aspen forest that was partially re-burned in the Whitewater-Baldy Complex Fire.
2. White Creek and Cub Creek fires, 1990's. Foreground and left hand sides.
3. Mogollon Creek Fire, 1990's. North (right) side of Mogollon Baldy
4. Whitewater-Baldy Complex Fire, 2012. Entire area

The green regrowth area, has had at least three fires, and has no standing or down snags. Of particular importance, notice the dead trees with brown needles that had survived at least one fire, but not the latest. The green regrowth on the left side is almost entirely New Mexico Locust, not grass, oak or aspen. There were few aspen on these near slopes to re-sprout, so it will require wind-blown seeds to produce an aspen colony. Once the locust becomes dominant, it is slow for aspen and spruce/fir to replace them. Reference McKnight Creek on the Black Range. Much of the north slope is still dominated by locust, 60 years after that stand removal fire.

Photo 2
This photo was taken looking east, down Packsaddle Canyon, about a half mile down-ridge from photo 1. It shows three successive burns in the middle distance, and 2 in the foreground. The green regrowth is entirely New Mexico Locust, and the brown foreground is last years Bracken Ferns.

Photo 3
This photograph was taken just a few hundred yards up the ridge from photo #2, in an area that was missed by the first two fires, but burned by the Whitewater-Baldy Complex Fire.

Note the small size of the burned trees. I believe this is part of the 1947 fire that burned the White Creek lease cabin. I remember this area was a “dog hair” thicket of Ponderosa Pine and locust that made the trip to Halfmoon Park difficult. The fire in 1947, was in early June and only crowned in a few places. It was contained shortly after the cabin was destroyed.

Photo 4.

This photo was taken near the head of Packsaddle Canyon, an area that was lightly burned in the Whitewater-Baldy Complex Fire.

Previous fire history is unknown, but conditions suggest that the last previous burn was 60+ years ago.

This mixed conifer area, of about 100 acres, is typical of the entire northern slopes and canyon bottoms of Packsaddle Canyon. The ridge tops and southern slopes were dominantly Ponderosa Pine and oak.

The photo was taken to illustrate the maturity of this forest, but most of the area has a much more closed canopy than shown here.

Photo 5.

View down Packsaddle Canyon, one half mile below photo #4.

This area was burned twice in the 1990's and again in 2012.

The small white sticks, top right corner, are aspen sprouts that grew prior to 2012, not re-sprout after the Whitewater-Baldy Complex Fire.

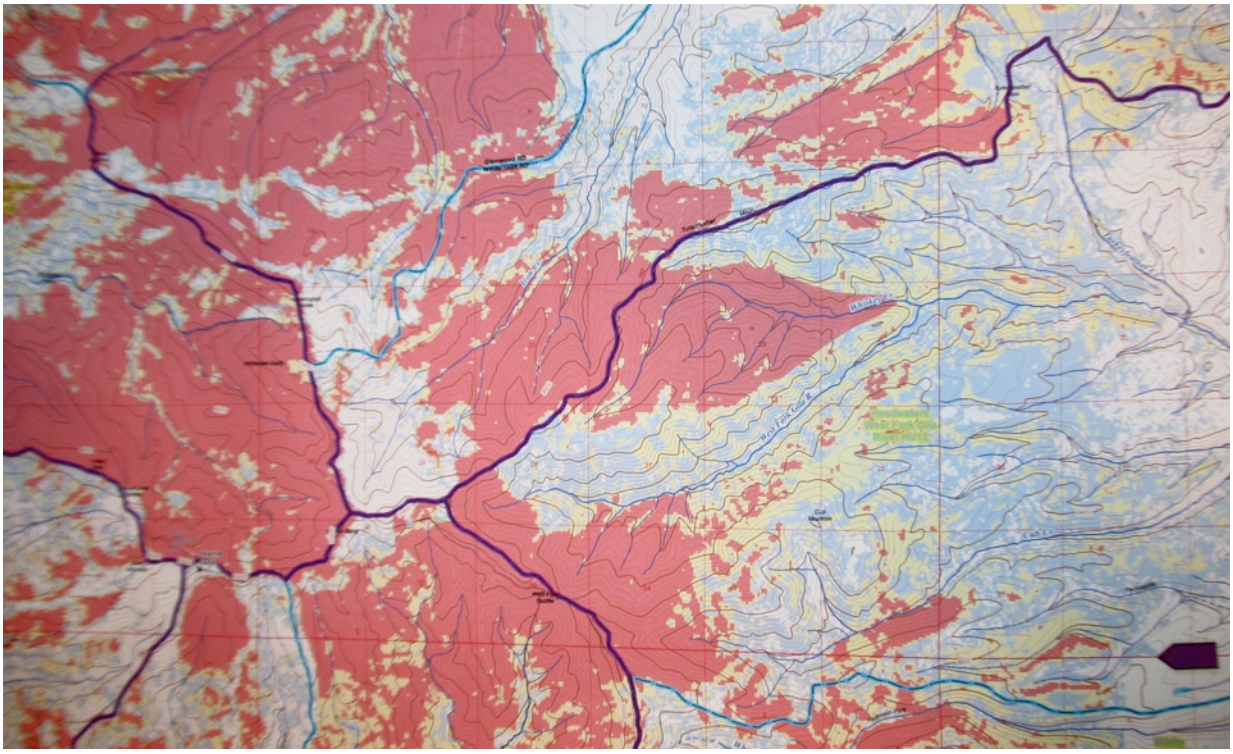
Note the very sparse grass and brush regrowth, even where the water is present. Obviously, there was no reseeding attempt or success in this area.

Photo 6, June 1974.

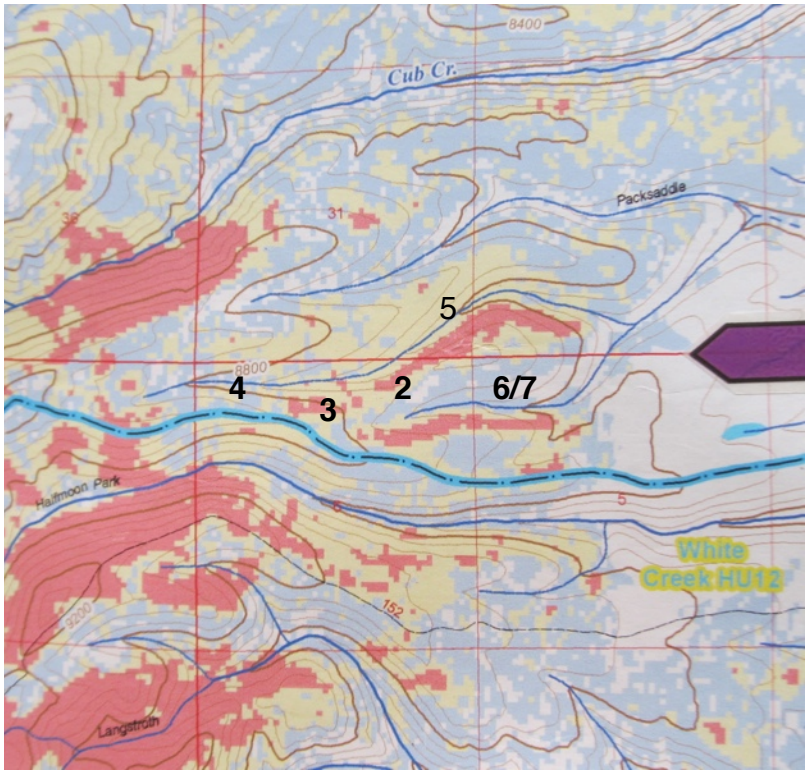
A trail ride group along the ridge between Packsaddle Canyon and White Creek Canyon.

This is about the same area as photo #7 below, but it is impossible to tell without better landmarks. However, the slope and wide ridge is about correct.

Photo 7.



Portion of the Burn Severity Map (BARC 06/05/2012 Derived). The area where the photographs were taken, is in the lower right and indicated with the arrow. Details below.



The numbers indicate where each photo was taken. It was a very small area, but very homogeneous as to vegetation type. Again, this area was chosen because of the overlap of many different burn events.

Color Code:

Red High intensity burn
Yellow Medium intensity
Blue Low intensity

Conclusion

The photos are just snapshots of what we saw as we circled around Packsaddle Canyon. I took many photos, but used only those that illustrated how fickle a fire may be. Photos show how the effect of previous fires in an area, improves or further degrades the forest in sequential fires.

I believe the high frequency of severe burns in this area so degraded this area that it is moving a historic Mixed Conifer ecosystem into a brush and grassland ecosystem. The mechanism is such:

The first fire kills all the over-story, and burns organic matter on the topsoil. Any plants with ability to re-sprout from the root start will be the first grow in that the area. Seeds are generally destroyed. As seeds are blown or carried into the area the scar will heal.

Since the first fire left most of the biomass dead but not removed, the second fire will cook the soil so badly that it becomes infertile. High soil temperature will kill many of the roots of re-sprouting species. Grass will become more dominant with each sequential fire, and as its density increases, the chances of tree seedlings surviving becomes less.

Over a very long period of no fires, chance survival of tree seedling survival will result in a mature forest system.

There is a special condition that must be recognized in the Whitewater Complex Fire:

The above mechanisms are true for small areas, measured in a few acres, not in hundreds of acres. In tens of thousands of acres that immense area is so far off the chart, there will be no regeneration without massive human intervention such as tree planting.

Of course, other factors such as time and drought, can change the outcome, but I believe in the case of the area shown in the photographs, this shift to grasslands is underway. Whether this is good or bad is not important. However, if the current burn policy is not changed, I see a great shift away from forests in the area of the Whitewater Baldy Complex Burn.

Allen Campbell

HC-68, Box 80
Silver City, NM 88061
ghss44@gmail.com